

Technicians at Penn Commercial Vehicle, a WheelTime member based in Glenmore, Pa., assembled this Coronado daycab demo tractor from a Freightliner glider kit. It has an APG dual-fuel diesel-natural gas system and a Webasto coolant heater.

A way to get into natural gas for less money

Dual-fuel glider kits are a relatively new alternative for fleets looking to tap into the benefits of natural gas but at less cost than buying a new, dedicated NG vehicle.

A glider is a new truck without some powertrain components. Shops in the field add rebuilt or remanufactured engines, transmissions and rear axles. Freightliner, which makes most glider kits, also can add reman'd engines at the factory, and sometimes reman'd or new axles. Engines are usually straight diesels, but can be fitted with dual-fuel systems.

A dual-fuel setup costs \$30,000 to \$35,000, about half what most new dedicated natural gas systems cost on a new truck. Dual-fuel systems let customers use cheap natural gas along with diesel, and makes the exhaust about 30% cleaner than “pre-emission” diesels. Because the engines can switch back to all-diesel at any time,

the still-spotty natural gas fueling infrastructure is less of a problem.

Last year two companies announced dual-fuel glider kits. EcoDual is partnering with Hunter Truck Sales, a Peterbilt dealer with 15 locations throughout Pennsylvania, New Jersey, New York and West Virginia. Hunter will provide custom-configured Peterbilt gliders with EcoDual's platform, the Max/SR Dual Fuel System.

American Power Group teamed up with the WheelTime network of dealers and repair shops to add APG's V5000 Turbocharged Natural Gas Dual-Fuel System to gliders from Freightliner.

One WheelTime member is Ervin Equipment in Shreveport, La., where Ken Eggen is director of business development. He says the APG system allows carrying natural gas on the truck in compressed or liquefied

form. Dual-fuel equipment, including special gas tanks, pumps and engine parts, are installed as part of the glider assembly process.

“We are slated to build nearly 1,000 glider trucks this year,” Eggen says, “and fully 20% will be dual-fuel.”

Nevertheless, many truck operators still know little about gliders and are suspicious of the idea. Those who have heard about them think of gliders in the traditional sense – a means to rebuild a wrecked truck that has a good powertrain. That's how gliders originated, but some fleets now substitute gliders for normal new or used trucks.

To help educate fleets about dual-fuel gliders, another WheelTime member, Penn Commercial Vehicle Solutions of Glenmore, Pa., has assembled a demonstrator tractor featuring APG dual-fuel equipment and a Webasto diesel-fueled heater. It will show the advantages of the glider kits that run

Tom Berg • Senior Editor



Dual-fuel systems can store gas in compressed or liquefied form. This is an LNG tank being installed by technicians at another WheelTime member, Smith Power in Salt Lake City.

partly on natural gas, combined with a heater that warms engine coolant for quick starts in cold weather.

The Freightliner Coronado tractor will allow potential customers to try out the concepts in real-world situations before they purchase, said Rick Roger, Penn's CEO.

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— Ken Eggen, Ervin Equipment

“We initially began this project as a way to familiarize our customers with the new dual-fuel technology from APG,” he says, then added the Webasto heater. “People can be reticent to buy into a new technology until they’ve tried it for themselves, and with this new glider they can do just that.”

The Coronado daycab glider has a rebuilt Detroit Diesel Series 60 engine with EPA '98 specifications, so it has no exhaust-gas recirculation or diesel particulate filter. The APG dual-fuel system offers emissions reduction advantages as well as considerable savings from inexpensive natural gas.

The dual-fuel system displaces up to 80% of the normal diesel fuel

consumption, with average displacement ranging from 40% to 65%, APG sources said. The energized fuel balance is maintained with a proprietary read-only electronic controller system, ensuring the engines operate at original equipment manufacturers' specified temperatures and pressures.

Because cheaper natural gas displaces diesel fuel, the system offers a 15% to 30% net savings in fuel costs. It's a non-invasive upgrade that boasts a 400- to 800-mile range with no reduction in horsepower, Roger says.

The system thus offers a way for fleets to begin using alternative fuels before or instead of committing to more expensive dedicated natural gas vehicles.

The Webasto coolant heater is

approved by California's Air Resources Board and verified by the Environmental Protection Agency's SmartWay program as a fuel saver. It can eliminate cold starts and quickly warm a cab's interior without idling the engine, and gets the vehicle and its driver on the road quickly. The heater's SmarTemp Control can be programmed to heat automatically at scheduled times, and temperatures can be easily adjusted.

The cost for a Penn-APG dual-fuel glider with Webasto coolant heater and SmarTemp Control is comparable to that of a new tractor that runs only on relatively expensive diesel fuel, Roger says. ■

FUEL in the News

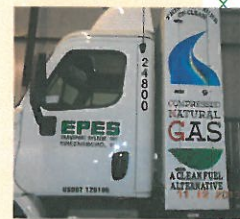
CALIFORNIA INVESTING IN FUEL CELLS

The California Energy Commission is seeking proposals to spend \$100 million starting in 2015 to build out fueling stations and other infrastructure to support hydrogen fuel-cell vehicles.

The program provides funding for projects that expand hydrogen fueling infrastructure, including building fueling stations; improving alternative vehicle technologies, and retrofitting medium- and heavy-duty vehicle technologies.

EPES ADDING NATURAL GAS

After two and a half years of researching natural gas, Greensboro, N.C.-based Epes Transport launched its first tractor powered completely by compressed natural gas.



Initially, Epes will run CNG tractors only in North Carolina. In February, Epes will add liquid natural gas-fueled tractors to its operating lanes in Georgia and Florida.

AMP CNG TO BUILD PUBLIC-ACCESS CNG STATION

AMP CNG (formally known as AMP Americas) announced that it has signed a deal with Venture Logistics to build CNG fueling infrastructure at an existing gasoline station in Lafayette, Ind.

The public station will serve the Subaru of Indiana Automotive plant as the anchor tenant, and will provide as much as 2.5 million diesel gallon equivalents of CNG each year to heavy-duty truck fleets operating primarily on I-65.

The ultra fast-fill CNG station will have 2 dual hose dispensers, 4 lanes, 4 hoses, and is expected to be fully operational by the end of March, 2014.